AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application.

1. (Currently Amended) A process for evaluating the hermeticity of a wafer connection ~~(200)~~, the process ~~comprising~~ comprising:

[[-]] manufacturing[[of]] a test structure ~~(100) by~~ by:

[[--]] forming a micromechanical sensor structure [[(3)]]and an adjacent melt structure[[(4)]] with electric strip conductors ~~(6a, 6b)~~ and first contacting islands[[(7)]] which are connected with the micromechanical sensor structure[[(3)]] and second contacting islands[[(8)]] which are connected with the melt structure[[(4)]] on a base wafer[[(1)]], and

[[--]] creating[[of]] a cavity[[(5)]] by connecting ~~the cover~~ a cover wafer[[(2)]] with the base wafer[[(1)]] so that the micromechanical sensor structure[[(3)]] and the melt structure[[(4)]] are located in the cavity[[(5)]]; and

[[-]] impressing[[of]] a current into the second contacting islands[[(8)]] in order to cause the melt structure[[(4)]] to melt for the purpose of the hermeticity test of the cavity[[(5)]], whereby a change in pressure is generated in the interior of the cavity[[(5)]], which change has a chronological course which is measured by means of the micromechanical sensor structure[[(3)]].

2. (Currently Amended) The process according to ~~claim 1 which comprises furthermore~~ claim 1, further comprising manufacturing[[of]] several microelectromechanical structures ~~(201)~~ on the wafer connection ~~(200)~~.

3. (Currently Amended) The process according to claim 2, wherein several test structures ~~(100)~~ are produced at specific points of the wafer connection ~~(200)~~.

4. (Currently Amended) The process according to claim 3, wherein the several test structures ~~(100)~~ are disposed in accordance with predetermined criteria of quality monitoring for the microelectromechanical structures ~~(201)~~.

5. (Currently Amended) The process according to ~~any of claims 1 to 5~~ claim 1, wherein the test structure ~~(100)~~ that is under the changed pressure is specifically subjected to stress conditions and wherein information on the reliability is obtained by comparing the measuring values of the micromechanical sensor structure[[(3)]] before and after the exerting of the stress condition.

6. (Currently Amended) A process for monitoring the function of a microelectromechanical structure ~~(201)~~, the process comprising:

[[-]] manufacturing[[of]] a test ~~structure (100) by~~ structure by:

[[--]]forming a micromechanical sensor structure[[(3)]] and an adjacent melt structure[[(4)]] with electric strip conductors ~~(6a, 6b)~~ and first contacting islands[[(7)]] which are connected with the micromechanical sensor structure[[(3)]] and second contacting islands[[(8)]] which are connected with the melt structure[[(4)]] on a base wafer[[(1)]], and

[[--]]creating[[of]] a cavity[[(5)]] by connecting a cover wafer[[(2)]] with the base wafer[[(1)]] so that the micromechanical sensor structure[[(3)]] and the melt structure[[(4)]] are located in the cavity[[(5)]];

[[-]] manufacturing[[of]] the microelectromechanical structure ~~(201)~~ so that it forms a functional bond with the test structure ~~(100)~~;

[[-]] operating[[of]] the microelectromechanical structure ~~(201)~~;

[[-]] impressing[[of]] a current into the melt structure[[(4)]] of the test structure ~~(100)~~; and

[[-]] evaluating[[of]] the measuring values of the micromechanical sensor structure[[(3)]] in order to implement an online monitoring of the microelectromechanical structure ~~(201)~~.

7. (Currently Amended) The process according to claim 6, wherein the melt structure[[(4)]] of the test structure ~~(100)~~ has several rated melting points ~~(4a, 4b)~~ and wherein the process further ~~comprises: successive~~ comprises successively activating[of] a melting process of the several rated melting points and evaluating[[of]] the measuring results obtained from the micromechanical sensor structure[[(3)]] in order to implement the online monitoring.

8. A test structure for evaluating the hermeticity of wafer connections ~~comprising~~ comprising:

[[-]] an area of a base wafer[[(1)]] and an area of a cover wafer[[(2)]],

[[-]] a cavity[[(5)]] that is formed by a wafer connection of the base wafer[[(1)]] and the cover wafer[[(2)]],

[[-]] a pressure-sensitive micromechanical structure[[(3)]] that is disposed in the cavity[[(5)]],

[[-]] a melt structure[[(4)]] that is disposed in the cavity[[(5)]],

[[-]] first contacting islands[[(7)]] that are located outside the cavity[[(5)]] and connected with the pressure-sensitive micromechanical structure (3),

[[-]] second contacting islands[[(8)]] that are disposed outside the cavity[[(5)]] and connected with the melt structure[[(4)]], and

[[-]] strip conductors ~~(6a, 6b)~~ that form a connection from the melt structure[[(4)]] to the second contacting islands[[(8)]] and from the pressure-sensitive micromechanical structure[[(3)]] to the first contacting islands[[(7)]].

9. (Currently Amended) The test structure according to claim 8, wherein the melt structure comprises a rated melting point ~~(4a, 4b)~~.

10. (Currently Amended) The test structure according to claim 8 ~~and/or 9~~, wherein the melt structure is composed of metal.

11. (Original) The test structure according to claim 10, wherein the metal contains aluminum.

12. (Currently Amended) The test structure[[11,]] according to claim 8 wherein, in the case of a current flow, melting parts of the melt structure ~~(4) extends~~ extend in a meander-like fashion in the cavity[[(5)]].

13. (Currently Amended) The test structure according to ~~at least one of claims 8 to 12~~ claim 8, wherein several rated melting points ~~(4a, 4b)~~ are provided in the melt structure[[(4)]] and wherein the rated melting points ~~(4a, 4b)~~ are defined by the design of the melt structure[[(4)]], whereby a limited number of melting processes can be successively repeated.

14. (Currently Amended) A wafer connection ~~(200) comprising~~ comprising:

[[-]] a test structure ~~(100)~~ for evaluating the hermeticity of the wafer connection ~~(200) having~~ having:

[[-]] a base wafer[[(1)]] and a cover wafer[[(2)]],

[[-]] a cavity[[(5)]] that is formed by the wafer connection of the base wafer[[(1)]] and the cover wafer[[(2)]],

[[-]] a pressure-sensitive micromechanical structure[[(3)]] that is disposed in the cavity[[(5)]],

[[-]] a melt structure[[(4)]] that is disposed in the cavity (5),

[[-]] first contacting islands[[(7)]] that are located outside the cavity[[(5)]] and connected with the pressure-sensitive micromechanical structure[[(3)]],

[[-]] second contacting islands[[(8)]] that are located outside the cavity[[(5)]] and connected with the melt structure[[(4)]], and

[[-]] strip conductors ~~(6a, 6b)~~ that form a connection from the melt structure[[(4)]] to the second contacting islands[[(8)]] and from the

pressure-sensitive micromechanical structure[[(3)]] to the first contacting islands[[(7)]], and

[[-]] a microelectromechanical structure ~~(201)~~.

15. (Currently Amended) The wafer connection according to claim 14, wherein several test structures ~~(100)~~ and several microelectromechanical structures ~~(201)~~ are provided.

16. (Currently Amended) The wafer connection according to claim 15, wherein the several test structures ~~(100)~~ are disposed in accordance with the criteria for quality assurance of the several microelectromechanical structures ~~(201)~~.

17. (Currently Amended) The wafer connection according to claim 14[[or 15]], wherein the test structure ~~(100)~~ and the microelectromechanical structure ~~(201)~~ are disposed as a bond.